

**METHOD, APPARATUS AND COMPUTER PROGRAM PRODUCT FOR
IMPLEMENTING ENHANCED HIGH FREQUENCY RETURN CURRENT
PATHS UTILIZING DECOUPLING CAPACITORS IN A PACKAGE DESIGN**

Abstract of the Disclosure

- 5 A method, apparatus and computer program product are provided for
implementing high frequency return current paths utilizing decoupling
capacitors within electronic packages. Electronic package physical design
data are received for identifying a board layout. For each of a plurality of
cells in a grid of a set cell size within the identified board layout, a respective
10 number of signal vias are identified. A ratio of signal vias to return current
paths is calculated for each of the plurality of cells. Each cell having a
calculated ratio greater than a target ratio is identified. One or more
decoupling capacitors are selectively added within each of the identified cells
to provide high frequency return current paths.